

## Frequently Asked Questions

## Brief Overview

## Detailed Description

Why change from the current design process manual, which is commonly referred to as 08-1?

Several improvements to the network were needed due to changes in technology over the last ten to twelve years.

The previous design process was implemented in the 1980's. Improvements to the network are needed due to changes in technology and how design is completed over the last 10 to 12 years. The new design process will improve design project delivery by:

- Providing specific networks for the concept and environmental phases that reflect how concept reports and environmental documents should be completed.
- Help streamline project setup.
- Utilizing Discipline Oriented Activities. Organized activities that help all team members know what should be completed for each task.
- Providing activities that help project managers better allocate and manage resources for each discipline.
- Providing a network that integrates specific team members early in the design process and allows them to strategize how they can successfully deliver the project from the beginning (critical path items).

How was the 2009 Design Network developed?

Network was developed based on input from UDOT and consultant professionals. It includes their input on how the network should be organized.

The 2009 Design Network was developed based on input from UDOT professionals and consultants who work in all different disciplines. The basic frame work of the network was created during a workshop in June of 2007. At this workshop, activities and tasks were developed by discipline. These activities were then organized based on how disciplines interact with each other. Project milestones, which indicate when all disciplines needed to come together to review progress of the design, were also identified.

After the workshop, the network was refined. Activities were assigned codes (letter and number designation) for implementation into ePM. The Design Network handbook was written for each activity and provides an overview of the activity. It also provides a list of the activity's deliverables, each deliverable's distribution, the activity's task descriptions, and each task's responsible party assignments. Follow-up meetings were held with discipline professionals to verify network configurations and to review activity write-ups.

## Frequently Asked Questions

What's different about the 2009 Design Network?

## Brief Overview

The 2009 Design Network is more comprehensive and is organized differently to help users easily track progress.

## Detailed Description

- There are a larger number of activities.
- Activities are provided for project setup and project management.
- A decision matrix is provided in ePM to help with setup of the design network.
- Activities are provided by discipline.
- General disciplines have their own letter designation. For example, project management is indicated by a Z, roadway is indicated by an R, and hydraulics is indicated by a Q.
- There are six stages in the design phase. Each stage has a numeric range that designates the time frame for completion of the activity in the design phase.
- There are six milestone meetings provided at the end of each stage of development. This will allow all disciplines to come together to coordinate compatibility of design elements.
- The early milestone meetings are focused on design compatibility and constructability rather than plan sheet development. Also, at these early meetings scroll plots or use of electronic files for review of design is preferred rather than plan sheets.
- Team members from disciplines like maintenance and right-of-way (ROW) are involved early in the process.
- ROW activities are provided at the beginning of the design process so that it is easier to identify potential acquisition problems and to develop strategies for solving potential problems and completing ROW plans.
- Hyperlinks are provided in the manual for discipline guidelines, forms, project documents, manuals, and other information needed during the design process.
- An activity is provided for developing and maintaining a project commitments list.
- Activities are available to manage hiring multiple types of consultants. (i.e. Survey, VE, CMGC, PI, CE, Design, etc.)
- Activities are available for involving CMGC

## Frequently Asked Questions

## Brief Overview

## Detailed Description

What are the benefits of the 2009 Design Network?

**The 2009 Design Network:**

- Better reflects how design is completed,
- Provides a better tool for managing projects, and
- Allows team members to easily track progress

- Better models how design projects are completed
- Clearly identifies ownership of activities and tasks
- Easier setup of projects within ePM
- The network is oriented by discipline tracks which will simplify tracking of discipline progress
- Easier to modify/update the network for future modifications to the design process. Each activity's description, tasks, deliverables, etc. can be quickly updated/adapted/changed as the process is modified
- The project management activity provides time for PM's to track their time
- Better connectivity to ePM and other web based documents
- Provides activities which can help streamline critical path activities (e.g. early ROW acquisition)
- Provides activities which allows early focus on design compatibility and constructability
- Provides distinct stages throughout the life of a project for better project coordination

Do I have to use the 2009 Design Network or can I continue to use the 08-1 Network?

After November 3, 2008, the 2009 Design Network must be used.

The 2009 Design Network will be in place on November 3, 2008. All projects started after that date will use the 2009 Design Network. Project managers can choose which network to use on projects where a modification is anticipated.

How are milestone meetings different in this network from the previous network?

Most of the milestone meetings are similar to the current design process. Two new meetings, the *Initial Geometry Review Meeting* and the *Design Review Meeting* have been added early in the design phase. These will focus on design and discipline

- The *Initial Project Team Meeting* is similar to the 08-1 Kickoff Meeting
- The *Project Identification Meeting* is similar to a Scoping Meeting
- The *Initial Geometry Review Meeting* is a new milestone meeting.
- The *Design Review Meeting (Scroll Plot)* is new milestone meeting.
- The *Plan Review Meeting* is similar to a Plan-In-Hand meeting.
- The *Project Documents Review Meeting* is similar to a PS&E meeting.

compatibility and not plan  
sheet development.

DRAFT

## Frequently Asked Questions

## Brief Overview

## Detailed Description

Why are the numbers not in sequential order?

Numbers used in each stage generally represent how activities chronologically correspond with each other representing when activities should begin.

Also, numbers are skipped to provide places for future activities if necessary.

Number ranges are used to designate which stage of design each activity is in. The following is a summary of the stage numbering system:

- *Project Identification Stage:* 0 to 19,
- *Set Initial Geometry Stage:* 20 to 29,
- *Design & Environmental Clearance Stage:* 30 to 49,
- *Plan Production Stage:* 50 to 69,
- *Project Documents Stage:* 70 to 79,
- *Advertisement Stage:* 80 to 89.

Within a stage, the numbering generally reflects how an activity relates chronologically with other activities within that stage. Most stages span 10 numbers. Those stages which span 20 numbers are stages where some disciplines (i.e. Structures and ROW) require more than 10 numbers or have multiple paths for completing special activities. Numbers are skipped to act as space holders for possible future activities.

Why are there so many activities?

The larger number of activities allows users to track the project's progress more easily by discipline.

There are many disciplines which are involved in providing quality projects. The network allows disciplines their own track through the design process. PM's and other team members are able to easily track the project's progress by discipline. The added tasks also give UDOT and the consultant staff a more effective way to allocate resources. Within a discipline, there is an average of about 10 activities. Some disciplines may have only two and others could have up to 28 activities.

What is a V activity?

V activities are milestone meetings to review the project.

V activities are milestone team meetings that are used to review constructability and compatibility of design between all disciplines. It also provides opportunity for the project team to share new information, related to their discipline, analyze impacts, verify the project's scope, budget, and schedule, and strategize to ensure project commitments.

Frequently Asked Questions	Brief Overview	Detailed Description
What is a discipline track?	A discipline track outlines the tasks that each discipline will follow throughout the design process.	On the flowchart, each discipline is assigned a color and a unique letter. The flowchart shows the all activities that each discipline (e.g., hydraulics, roadway design, ROW, and utilities, etc.) will complete throughout the design process. The letter designations were chosen to closely represent the title of the discipline and were also chosen based on the available letters in ePM. Some letters were not available because they are already in use in other networks like the Orange Book or Concept networks.
What is a Phase Leader?	The phase leader is responsible for a specific phase of the project.	The phase leader is responsible for a specific phase of the project and associated deliverables. The phase leader typically has other titles as well. These titles could include: design squad leader, environmental lead, or consultant project manager. For another example, in the Construction Phase the Resident Engineer serves as the Phase Leader. The project manager and phase leader determine together the phase leader's responsibilities at the beginning of the phase.
How is a phase leader different from a project manager?	The project manager is ultimately responsible for the success of the project; the phase leader is responsible for project deliverables.	The project manager is responsible for the overall scope, schedule, budget, and quality of the project through the Concept, Environmental, Design, and Construction Phases. He/she is ultimately responsible for the success of a project and is the primary point of contact for all project-related matters. The phase leader, on the other hand, is responsible for project deliverables. The project manager and phase leader work closely together throughout the life of a project.
What is the meaning of the Responsibility Chart and what do the X's mean?	Responsibility Chart identifies the Activity Leader and those responsible for specific tasks within the activity (designated with an X).	Titles are listed in the responsibility chart because they will provide support in completing the activity. They may be the person doing the work (e.g., designer), or they may be providing input and review (e.g., region landscape architect or the region hydraulics engineer). The title with an X indicates that individual will take the lead on that task. In both cases, tasks may be delegated to other team members. However, those indicated in the chart as the responsible party will be

held accountable for successful completion of the task.

## Frequently Asked Questions

## Brief Overview

## Detailed Description

What is the difference between the activity leader in the responsibility chart and the others that are listed?

The Activity Leader makes sure that the specific activity is completed on time and information is distributed to the appropriate people.

The Activity Leader is responsible for making sure the activity is completed on time and that the deliverables are distributed to the appropriate team members/activities. The Activity Leader can delegate the activity tasks to team members on their team as they wish, but they are ultimately responsible for the activity's completion and deliverables.

Why scroll plots? Why not use plan sheets before plan production? Can electronic design files be used?

Scroll plots and/or electronic design files are to be used for early milestone reviews. These reviews should focus on the design elements and their compatibility, and constructability.

Scroll plots and electronic design files should be used during the *Initial Project Team Meeting (09V)*, *Project Identification Meeting (19V)*, *Initial Geometry Review Meeting (29V)*, and the *Design Review Meeting (39V)* to focus early reviews comments on design, constructability, and compatibility. It's recommended that electronic files be provided to team members prior to the milestone meeting for review. In the milestone meetings, a scroll plot and electronic files can be used to help team members better understand how all the separate discipline's designs are working together and how to resolve any conflicts that may be identified. This will also reduce the number of plan sheet editing comments at early reviews and reduce the number of design changes once the plan sheets are cut and specifications are written. After design is completed (during the *Plan Production* and *Project Documents Stage*) plan sheets are cut and distributed for review. Reviews during these stages will review design details and bid ability of the plans.

Why are activity codes listed in the distribution list?

Activity codes are listed in the distribution list to signify that deliverables of that activity will be provided to the specified activity's leader.

Activity codes are listed in the distribution list to verify that the activity leader of the listed activity receives the deliverables listed for the current activity. For example, Activity 11Q: *Assess Existing Hydraulic Conditions* has 13R in the distribution list. This is to make sure that the activity leader in 13R the Project Design Engineer will receive the deliverables from 11Q for inclusion in the project review package.

Frequently Asked Questions	Brief Overview	Detailed Description
How is ProjectWise incorporated into the 2009 Design Network?	All project related documents will be filed utilizing ProjectWise.	<p>UDOT has adopted ProjectWise as its official document management system. The department's expectation is that all project related documents are to be placed in the system and properly attributed. ProjectWise is to be used as the central location for the Project File where <b>all deliverables</b>, as defined in the 2009 Design Network, are placed and accessed by project team members.</p> <p>Additional information on ProjectWise can be found at:  <a href="http://www.udot.utah.gov/main/f?p=100:pg:443084615047012:::1:T,V:2140">http://www.udot.utah.gov/main/f?p=100:pg:443084615047012:::1:T,V:2140</a></p>
How will consultants use ProjectWise?	Consultants will be given access to ProjectWise on a project-by-project basis and files will be updated at the completion of each activity.	UDOT hosts the ProjectWise system and the Project File for each project. Consultants are given access to ProjectWise and the Project File on a project-by-project basis. Deliverables are distributed to the Project File in ProjectWise before each activity is completed.
How will UDOT use ProjectWise?	UDOT personnel have access and will store project documents with ProjectWise.	All project personnel in UDOT have access to project files in ProjectWise. Access rights are based on the discipline group a team member belongs to.
Can I make comments regarding the Network? Who do I send them to?	Comments are appreciated. Please send your input to <a href="mailto:DNcomments@utah.gov">DNcomments@utah.gov</a> .	The 2009 Design Network team welcomes any comments or questions you may have. By providing input, you can help make the 2009 Design Network be more efficient and reflect of the way that UDOT designs roadways. Please send your input to <a href="mailto:DNcomments@utah.gov">DNcomments@utah.gov</a> .
Why are there two ROW colors?	The two colors in the flowchart indicate the difference in responsible parties for the tasks (Region and Central ROW).	The two colors in the flowchart indicate the difference in responsible parties for the tasks (Central ROW or Region ROW).
Why are there so many ROW tracks?	One track allows for early parcel acquisition and the other track is traditional	The network has been designed to allow ROW and other project team members the opportunity to identify parcels which are good candidates for early acquisition and to begin the acquisition process.



	acquisition.	This will help reduce the possible schedule set-backs that are caused by lengthy ROW acquisitions.
Frequently Asked Questions	Brief Overview	Detailed Description
What is the longevity of the 2009 Design Network? When will it be updated?	The Network was designed to be easily, it's anticipated to be used for many years to come. The Network will be updated on a regular basis.	The Network is designed to be a dynamic process as procedures change, updates can easily be made. This will allow the network to be improved on a consistent basis and will make the document applicable far into the future.
What is the status of the other Networks such as Design-Build, Environmental, Concept, Local Government, and Orange Book?	Other networks are available and should be used for appropriate projects.	Other UDOT networks—such as Design-Build, Environmental, Concept, Local Government, and Orange Book—are available to track project progress through all phases.  UDOT uses the Local Government network to manage projects. UDOT can have consultants use the activities from the 2009 Design Network for Local Government projects.
What is the difference between a phase and a network?	A network is a tool to management different phases of a project. A project phase represents the different timeframes in a project's life.	A project life is broken into different phases of development. These phases are: concept, environmental, design, and construction. The network is a management tool that links together the activities in the phase so that the project can be monitored and track for successful completion.